INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP00/06315

A. CLASSIFICATION OF SUBJECT MATTER Int.Cl ⁷ C03B37/04, D01D5/08								
	According to International Patent Classification (IPC) or to both national classification and IPC							
B. FIELDS								
Minimum documentation searched (classification system followed by classification symbols) Int.Cl ⁷ C03B37/04, D01D5/08								
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Jitsuyo Shinan Koho 1926-1996 Toroku Jitsuyo Shinan Koho 1994-2000 Kokai Jitsuyo Shinan Koho 1971-2000 Jitsuyo Shinan Toroku Koho 1996-2000								
	a base consulted during the international search (na	me of data base and, where practicable, sea	arch terms used)					
	ENTS CONSIDERED TO BE RELEVANT		ı — — — — — — — — — — — — — — — — — — —					
Category*	Citation of document, with indication, where a	<u></u>	Relevant to claim No.					
[2	US, 4689061, A (Owens-Corning 25 August, 1987 (25.08.87), Column 4; drawings (Family:		1-7					
[]	US, 3523774, A (Owens-Corning 11 August, 1970 (11.08.70), Full text (Family: none)	Fiberglas Corporation),	1-7					
8 8	JS, 3304164, A (Compagnie de S 14 February, 1967 (14.02.67), Column 3; drawings 2 FR, 1382917, A 3 JP, 42-13748, B1, page 2, ri		1-7					
Further do	ocuments are listed in the continuation of Box C.	See patent family annex.						
Special categories of cited documents: A" document defining the general state of the art which is not considered to be of particular relevance E" earlier document but published on or after the international filing date L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) O" document referring to an oral disclosure, use, exhibition or other means P" document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention cannot be considered novel or cannot be considered to involve an inventive step when the document of particular relevance; the claimed invention cannot be document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art document member of the same patent family								
Date of the actual completion of the international search 20 December, 2000 (20.12.00) Date of mailing of the international search report 16 January, 2001 (16.01.01) Date of mailing address of the ISA/ Authorized officer								
Japane	ese Patent Office	Authorized officer						
acsimile No.		Telephone No.						

For receiving	Office	use	only

PCT	International Application No.	· · · · · · · · · · · · · · · · · · ·			
REQUEST	International Filing Date				
The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.	Name of receiving Office and "PCT International Application"				
	Applicant's or agent's file refe (if desired) (12 characters maxim				
Box No. I TITLE OF INVENTION PROCESS AND APPARATUS FOR PRODUCING GLASS FI	BERS				
Box No. II APPLICANT	This person is also inventor				
Name and address: (Family name followed by given name; for a leg The address must include postal code and name of country. The country Box is the applicant's State (that is, country) of residence if no State of Paramount Gless Manufacturing Co., Ltd.	ry of the address indicated in this	Telephone No. 024-923-5111 Facsimile No.			
8-1, Choja 3-Chome, Koriyama-Shi, Fukushima-Ken 963-8017, Japan		Teleprinter No.			
		Applicant's registration No. with the Office			
State (that is, country) of nationality: Japan	State (that is, country) of res	idence: Japan			
	- · · · · · · · · · · · · · · · · · · ·	nited States the States indicated in the Supplemental Box			
Box No. III FURTHER APPLICANT(S) AND/OR (FU	JRTHER) INVENTOR(S)				
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) OTAKI Keiji 13-13, Kuwano 5-Chome, Koriyama-Shi, Fukushima-Ken 963-8025, Japan This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.) Applicant's registration No. with the Office					
State (that is, country) of nationality:	State (that is, country) of reside	ence:			
Japan	the I	Japan Inited States			
		Inited States the States indicated in the Supplemental Box			
Further applicants and/or (further) inventors are indicated on a con	tinuation sheet.				
Box No. IV AGENT OR COMMON REPRESENTAT	TIVE; OR ADDRESS FOR	CORRESPONDENCE			
The person identified below is hereby/has been appointed to act on behalf applicant(s) before the competent International Authorities as:	agent	common representative			
Name and address: (Family name followed by given name; for a leg designation. The address must include postal c	zai emity, jun ojjiciai	Felephone No. 03-3281-5674			
ICHIKAWA Rikichi ENDO Tatsuya ICHIKAWA Makoto	I	Facsimile No. 03-3272-3189			
Ichikawa Patent Agency, Katakura Bldg., 1-2, KYOBASHI 3-CHOME, CHUO-KU, TOKYO 104-0031, JAPAN	1	Feleprinter No.			
		Agent's registration No. with the Office			
Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.					

Continuation of Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)			
If none of the following sub-boxes is used, this sheet should not be included in the request.				
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) SHINOBU Yukiyoshi 20-5, Aza Kita-Nakano-Shita, Otsuki-Machi, Koriyama-Shi, Fukushima-Ken, 963-0201, Japan This person is: applicant only inventor only (If this chamarked, do not fill in beautiful in beautiful in the Applicant's registration No. with the state of the state				
State (that is, country) of nationality: State (that is, country) of res Japan State (that is, country) of res	Japan			
	nited States the States indicated in the Supplemental Box			
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) HARADA Yoshiyuki Sun-hills No. 500-202, 23-8, Saikon-Yashiki, Koriyama-Shi, Fukushima-Ken, 963-8863, Japan	This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.) Applicant's registration No. with the Office			
State (that is, country) of nationality: State (that is, country) of res				
	Japan Inited States the States indicated in the Supplemental Box			
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.) Applicant's registration No. with the Office				
State (that is, country) of nationality: State (that is, country) of res	sidence:			
This person is approximated and the second s	United States the States indicated in the merica only Supplemental Box			
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.) Applicant's registration No. with the Office				
State (that is, country) of nationality: State (that is, country) of residence:				
This person is applicant for all designated the purposes of: all designated States except the United States of America only Supplemental Box				
Further applicants and/or (further) inventors are indicated on another continuation sheet.	<u> </u>			

Sheet No. 3								
Box 1	Box No. V DESIGNATION OF STATES Mark the applicable check-boxes below; at least one must be marked.							
The fo	The following designations are hereby made under Rule 4.9(a): (Double-click here if you want all the boxes below checked.)							
Regi	onal I	Patent						
\boxtimes	AP ARIPO Patent: GH Ghana, GM Gambia, KE Kenya, LS Lesotho, MW Malawi, MZ Mozambique, SD Sudan, SL Sierra Leone, SZ Swaziland, TZ United Republic of Tanzania, UG Uganda, ZW Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT							
\boxtimes	EA	EA Eurasian Patent: AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakhstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State						
\boxtimes	of the Eurasian Patent Convention and of the PCT European Patent: AT Austria, BE Belgium, CH & LI Switzerland and Liechtenstein, CY Cyprus, DE Germany, DK Denmark, ES Spain, FI Finland, FR France, GB United Kingdom, GR Greece, IE Ireland, IT Italy, LU Luxembourg, MC Monaco, NL Netherlands, PT Portugal, SE Sweden, TR Turkey, and any other State which is a Contracting State of the European Patent Convention and of the PCT							
⊠	OA	OAPI Patent: BF Burkina Faso CM Cameroon, GA Gabon, GN G TD Chad, TG Togo, and any other Skind of protection or treatment desir	, BJ E uinea, C State wh	Benin, GW G ich is	CF Central African Reguinea-Bissau, ML Mali, I a member State of OAPI and	MR N id a C	Aaurita ontract	nia, NE Niger, SN Senegal, ting State of the PCT (if other
Natio	onal I	Patent (if other kind of protection or t	reatmer	ıt desii	red, specify on dotted line):			
\boxtimes	ΑE	United Arab Emirates	\boxtimes	GE	Georgia			Malawi
$\overline{\boxtimes}$	AG	Antigua and Barbuda		GH	Ghana		MX	Mexico
\boxtimes		Albania			Gambia		MZ	Mozambique
	AM	Armenia	\boxtimes	HR	Croatia	\boxtimes	NO	Norway
	AT	Austria	\boxtimes	HU	Hungary	Ø	NZ	New Zealand
\boxtimes	ΑU	Australia	\boxtimes	ID	Indonesia		PL	Poland
	ΑZ	Azerbaijan	\boxtimes	IL	Israel		PT	Portugal
\boxtimes	BA	Bosnia and Herzegovina		IN	India		RO RU	Romania
_				IS	Iceland		ΚU	Russian Federation
	BB	Barbados	\boxtimes	JP	Japan		SD	Sudan
	BG	Bulgaria	님	KE	Kenya	ద		Sweden
	BR	Brazil	님	KG KP	Kyrgyzstan Democratic People's			Singapore
	BY	Belarus	ليا	KI	Republic of Korea	×		Slovenia
	BZ CA	Belize Canada	\boxtimes	KR	Republic of Korea		SK	Slovakia
		LI Switzerland and Liechtenstein	Ä	KZ	Kazakhstan	ö		Sierra Leone
	CN	China	⊠	LC	Saint Lucia	П	TJ	Tajikistan
	CO	Colombia	⊠	LK	Sri Lanka		TM	Turkmenistan
	CR		☒	LR	Liberia	$\overline{\boxtimes}$	TR	Turkey
	CU	Cuba		LS	Lesotho	\boxtimes	TT	Trinidad and Tobago
	CZ	Czech Republic	\boxtimes	LT	Lithuania			
ΙĦ	DE	Germany		LU	Luxembourg		TZ	United Republic of Tanzania
ΙĦ	DK	Denmark	$\overline{\boxtimes}$	LV	Latvia	\boxtimes	UA	Ukraine
	DM	Dominica	\boxtimes	MA	Morocco		UG	Uganda
	DZ	Algeria		MD	Republic of Moldova	\boxtimes	US	United States of America
	EE	Estonia						
ΙĦ	ES	Spain	\boxtimes	MG	Madagascar	\boxtimes	UZ	Uzbekistan
ΙĦ	FI	Finland	\boxtimes	MK	The former Yugoslav	\boxtimes	VN	Viet Nam
ΙΠ̈́	GB	United Kingdom			Republic of Macedonia	\boxtimes	YU	Yugoslavia
l⊠	GD	Grenada				\boxtimes		South Africa
_	_		\boxtimes	MN	Mongolia] ZW	Zimbabwe
Charle haves received for designating States which have become party to the PCT after issuance of this sheet								

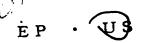
Precautionary Designation Statement: In addition to the designations made above, the applicant also makes under Rule 4.9(b) all other designations which would be permitted under the PCT except the designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation (including fees) must reach the receiving Office within the 15-month time limit.)

Box No. VI PRIORI	Box No. VI PRIORITY CLAIM					
The priority of the foll	lowing earlier application	on(s) is hereby claimed:				
Filing date	Number		Where earlier applicatio	on is:		
of earlier application (day/month/year)	of earlier application	national application: country	regional application:* regional Office	international application: receiving Office		
item (1) 16.09.99	11-261856	Japan	- 8			
item (2)		_				
item (3)						
item (4)						
item (5)						
Further priority c	laims are indicated in the S	Supplemental Box.				
The receiving Office is a (only if the earlier appli Office) identified above a	cation was filed with the	ransmit to the Internationa Office which for the purp	al Bureau a certified copy of oses of this international ap	f the earlier application(s) oplication is the receiving		
all items 🔀 i	tem (1) item (2)	item (3)	item (4) item (5	other, see Supplemental Box		
*Where the earlier applica Industrial Property or one	tion is an ARIPO application Member of the World Trade (, indicate at least one country Organization for which that e	y party to the Paris Convention arlier application was filed (Ri			
Box No. VII INTERN	ATIONAL SEARCHING	GAUTHORITY				
international search, indica	Il Searching Authority (ate the Authority chosen; the	two-letter code may be used)	:	s are competent to carry out the		
				r requested from the International		
Date (day/month/year)	Number		Country (or regional Offi	ice)		
Box No. VIII DECLAR	RATIONS					
	are contained in Boxes Nos. V	/III (i) to (v) (mark the applica	ble check-boxes below and indic	cate in Number of declarations		
Box No. VIII (i)	Declaration as to the ide	ntify of the inventor		:		
Box No. VIII (ii)	Box No. VIII (ii) Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent :					
Box No. VIII (iii) Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application :						
Box No. VIII (iv)	Declaration of inventors America)	hip (only for the purposes of the	ne designation of the United State	es of :		
Box No. VIII (v)	Declaration as to non-pr	ejudicial disclosures or except	ions to lack of novelty:			

Sheet No. 5

Box No. IX CHECK LIST; LAN	NGUAGE OF	FILING			
This international application con (a) the following number of sheet		This international application is accompanied by the following item(s) (mark the applicable check-boxes below and indicate in right column the number of each item):	Number of items		
paper form:		right cotains the hamoer of each herry.			
request (including declaration	sheets)	1.	:		
: description (excluding sequer	4 nce listina	2. original separate power of attorney	:		
• • •	: 12	3. original general power of attorney	: [
claims	: 2	4. copy of general power of attorney; reference number,			
	: 1	if any:			
drawings Sub-total number of sheets	: <u>4</u>	5. statement explaining lack of signature	;		
sequence listing part of	•	6. priority document(s) identified in Box No. VI as item(s):	:		
description (actual number of	r	7 translation of international application into			
sheets if filed in paper form, whether or not also filed in		(language):	:		
computer readable form; see		8. separate indications concerning deposited			
(b) below)	:	microorganism or other biological material	:		
Total number of sheets (b) sequence listing part of descri		9. sequence listing in computer readable form (indicate also type and number of carriers (diskette, CD-ROM,			
computer readable form	ption med m	CD-R or other))			
(i) only (under Section		(i) copy submitted for the purposes of international			
801(a)(i)) (ii) ☐ in addition to being		search under Rule 13ter only (and not as part of			
filed in paper form		the international application)	·		
(under Section 801(a)(ii))		(ii) (only where check-box (b)(i) or (b)(ii) is marked in left column) additional copies including, where			
Type and number of carrier	s (diskette,	applicable, the copy for the purposes of international search under Rule 13 <i>ter</i>			
CD-ROM, CD-R or other) on	which the				
sequence listing part is contained (additional copies to be indicated under		(iii) together with relevant statement as to the identity of the copy or copies with the sequence listing			
item 9(ii), in right column):		part mentioned in left column :			
		10. other (specify)	:		
Figure of the drawings which		Language of filing of the			
should accompany the abstract:	11	international application: JAPANESE			
		, AGENT OR COMMON REPRESENTATIVE n signing and the capacity in which the person signs (if such capacity is not o	bvious from reading		
the request).	name of the perso	is signing and the capacity in the capacity of			
					
		For receiving Office use only			
1. Date of actual receipt of the purported international application: 2. Drawings:					
3. Corrected date of actual recei	3. Corrected date of actual receipt due to later but				
timely received papers or dra- the purported international ap	wings completin	g	received:		

4. Date of timely receipt of the required corrections under PCT Article 11(2):			not received:		
5. International Searching Author	ority	Transmittal of search copy delayed			
(if two or more are competen	t): ISA/JP	For International Bureau use only			
Date of receipt of the record copy		s of Americanomia Daireas and one;			
by the International Bureau:					



PCT

国際調査報告

(法8条、法施行規則第40、41条) [PCT18条、PCT規則43、44]

出願人又は代理人 の書類記号 2186	今後の手続きについては、国際調査報告の送付通知様式(PCT/ISA/220) 及び下記5を参照すること。
国際出願番号 PCT/JP00/06315	国際出願日 (日.月.年) 14.09.00 優先日 (日.月.年) 16.09.99
出願人 (氏名又は名称) パラマウン	ト硝子工業株式会社
国際調査機関が作成したこの国際調 この写しは国際事務局にも送付され	査報告を法施行規則第41条(PCT18条)の規定に従い出願人に送付する。 る。
この国際調査報告は、全部で 3	ページである。
□ この調査報告に引用された先行	技術文献の写しも添付されている。
□ この国際調査機関に提出さ	くほか、この国際出願がされたものに基づき国際調査を行った。 された国際出願の翻訳文に基づき国際調査を行った。
b. この国際出願は、ヌクレオチ	ド又はアミノ酸配列を含んでおり、次の配列表に基づき国際調査を行った。 F面による配列表
□ この国際出願と共に提出さ	されたフレキシブルディスクによる配列表
□出願後に、この国際調査機	幾関に提出された書面による配列表
□出願後に、この国際調査権	機関に提出されたフレキシブルディスクによる配列表
書の提出があった。	よる配列表が出願時における国際出願の開示の範囲を超える事項を含まない旨の陳述
事面による配列表に記載 書の提出があった。	した配列とフレキシブルディスクによる配列表に記録した配列が同一である旨の陳述
2. 🗓 請求の範囲の一部の調査	ができない(第1欄参照)。
3. 説 発明の単一性が欠如して	いる(第Ⅱ欄参照)。
4. 発明の名称は 🛛 🖰	I願人が提出したものを承認する。
	に示すように国際調査機関が作成した。
3. 2	出願人が提出したものを承認する。
	≶Ⅲ欄に示されているように、法施行規則第47条(PCT規則38.2(b))の規定により 国際調査機関が作成した。出願人は、この国際調査報告の発送の日から1カ月以内にこ ○国際調査機関に意見を提出することができる。
6. 要約審とともに公表される図的 第1 図とする。区 E	は、 出願人が示したとおりである。 □ なし
	出願人は図を示さなかった。
_ 7	本図は発明の特徴を一層よく表している。

	.	•
軍隊	空調杏葉	3生

第I欄	請求の範囲の一部の調査ができないときの意見(第1ページの2の続き)
法第8条成しなか	第3項 (PCT17条(2)(a)) の規定により、この国際調査報告は次の理由により請求の範囲の一部について作
1.	請求の範囲は、この国際調査機関が調査をすることを要しない対象に係るものである。 つまり、
	請求の範囲 は、有意義な国際調査をすることができる程度まで所定の要件を満たしてい
2.	請求の範囲は、有意義な国際調査をすることができる程度まで所定の要件を确定していない国際出願の部分に係るものである。つまり、
3. X	請求の範囲8 は、従属請求の範囲であってPCT規則6.4(a)の第2文及び第3文の規定に 従って記載されていない。
第Ⅱ欄	発明の単一性が欠如しているときの意見(第1ページの3の続き)
次に対	述べるようにこの国際出願に二以上の発明があるとこの国際調査機関は認めた。
	·
í. 🗆	出願人が必要な追加調査手数料をすべて期間内に納付したので、この国際調査報告は、すべての調査可能な請求 の範囲について作成した。
2.	追加調査手数料を要求するまでもなく、すべての調査可能な請求の範囲について調査することができたので、追 加調査手数料の納付を求めなかった。
3.	出願人が必要な追加調査手数料を一部のみしか期間内に納付しなかったので、この国際調査報告は、手数料の納付のあった次の請求の範囲のみについて作成した。
	・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・
4.	出願人が必要な追加調査手数料を期間内に納付しなかったので、この国際調査報告は、請求の範囲の最初に記載 されている発明に係る次の請求の範囲について作成した。
追加調	査手数料の異議の申立てに関する注意
	□ 追加調査手数料の納付と共に出願人から異議申立てがあった。 □ 追加調査手数料の納付と共に出願人から異議申立てがなかった。
1	



A. 発明の原	属する分野の分類(国際特許分類(IPC))			
Int. Cl.	'C03B37/04, D01D5/08			
B. 調査を1	テった分野			
調査を行った	最小限資料(国際特許分類(IPC))			
Int. Cl.	'C03B37/04、D01D5/08			
日本国実 日本国公 日本国登	外の資料で調査を行った分野に含まれるもの用新案公報1926-1996年開実用新案公報1971-2000年録実用新案公報1994-2000年日新案登録公報1996-2000年			
国際調査で使ん	用した電子データベース (データベースの名称、 ,	調査に使用した用語)	·	
C. 関連す	ると認められる文献		BB) to Low	
引用文献の カテゴリー*	引用文献名 及び一部の箇所が関連すると	きは、その関連する箇所の表示	関連する 請求の範囲の番号	
A	US, 4689061, A (Owens-Con)、25.8月.1987 (25.面 (ファミリーなし)	orning Fiberglas Corporatio 08.87)、第4欄及び図	1 - 7	
A	US, 3523774, A(Owens-Conn)、11.8月.1970(11.リーなし)	rning Fiberglas Corporatio 08.70)、全文(ファミ	1 - 7	
A	US, 3304164, A(Compagnie 2月. 1967 (14. 02. 67) 1382917, A & JP. 42- 欄及び図面	、第3欄及び図面 &FR,	1-7	
□ C欄の続	きにも文献が列挙されている。	□ パテントファミリーに関する別	紙を参照。	
* 引用文献のカテゴリー 「A」特に関連のある文献ではなく、一般的技術水準を示すもの 「E」国際出願日前の出願または特許であるが、国際出願日以後に公表されたもの 「L」優先権主張に疑義を提起する文献又は他の文献の発行日若しくは他の特別な理由を確立するために引用する文献(理由を付す) 「O」口頭による開示、使用、展示等に言及する文献「P」国際出願日前で、かつ優先権の主張の基礎となる出願 「A」特に関連のある文献を出版と表された文献であって、発明の原理又はの理解のために引用するの新規性又は進歩性がないと考えられるもの「Y」特に関連のある文献であって、当該文献と他の上の文献との、当業者にとって自明である組合よって進歩性がないと考えられるもの「P」国際出願日前で、かつ優先権の主張の基礎となる出願				
国際調査を完	E了した日 20.12.00	国際調査報告の発送日 16.0	1.01	
国際調査機関日本	間の名称及びあて先 国特許庁 (ISA/JP) 郵便番号100-8915	特許庁審査官(権限のある職員) 近野 光知 F	4T 9260	
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